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GENERAL INFORMATION

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INTRODUCTION

Congratulations on purchasing this product, which we are certain will meet your needs and expectations. This project was created by ZUCCHETTI CENTRO SISTEMI S.p.A. (UNI EN ISO 9001 certified company), a software house that since 1982 has consolidated its activities and presence on the international market. Applying advanced IT solutions in the field of industrial automation means optimising the production activities and simplifying the work procedures. This product was created on the basis of on-going research by ZUCCHETTI's laboratories.

PURPOSE OF THE MANUAL

- This manual forms an integral part of the appliance and was produced by the Manufacturer to provide the necessary information to people authorised to interact with it during its working life.
- Operators of the appliance must adopt correct working practices and must carefully read and follow all the instructions contained in this manual.
- This manual was written by the Manufacturer in the original language of Italian and may be translated into other languages to meet legal and/or commercial requirements.
- Carefully read the instructions contained in this manual to avoid any unnecessary risks to people's health and safety, as well as economic damages.
- Keep this manual in a safe and easily accessible place for quick reference.
- Some information and illustrations contained in this manual may not perfectly correspond with the appliance in your possession; however, this will not affect its functioning.
- The Manufacturer reserves the right to make changes at any time, without notice.
- The following symbols are used throughout this manual to highlight some particularly important information or identify some important specifications.

Danger - Attention

This symbol indicates situations involving imminent danger, which, if ignored, could put people's health and safety at risk.

Warning - Caution

This symbol indicates situations where it is necessary to behave in a certain way in order to avoid putting people's health and safety at risk, and to protect the device.

Important

This symbol identifies particularly important technical information that must not be ignored.

IDENTIFICATION OF MANUFACTURER AND EQUIPMENT

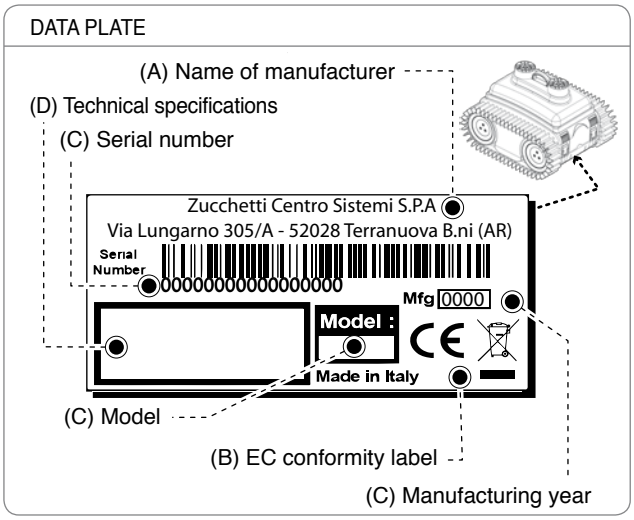
The identification plate shown here is applied directly onto the appliance. It contains references and all the information essential for the safe operation of the device.

A. Name of manufacturer.

B. CE conformity label

C. Model / serial number / manufacturing year.

D. Technical specifications: voltage, current, protection rating, mass.



REQUESTING TECHNICAL ASSISTANCE

For any technical requirements, please contact the Manufacturer's Technical Service Centre or an authorised dealer. For technical assistance, please indicate the data reported on the identification plate, the approximate hours of use and the type of fault detected.

SAFETY INFORMATION

SAFETY RULES

- During design and construction, the manufacturer carefully considered the possible hazards and personal risks that may result from interacting with the equipment. In addition to complying with the applicable laws in force, the manufacturer adopted all the "good manufacturing practice regulations." The purpose of this information is to inform users on the need to use extreme caution to avoid risks.
- Before use, carefully read the whole manual and be sure to understand it fully, especially the safety information.
- Only use the equipment for the purposes specifically intended by the manufacturer. Improper use of the equipment may be hazardous to personal safety and health and may lead to economic losses. Keep in mind that the operator or user is responsible for accidents or danger to other people or their property.
- This appliance cannot be used by people (including children) with limited physical, sensorial or mental abilities and little experience and/or know-how, unless they are supervised by a person responsible for their safety or have received instructions on how to use the appliance. Children should be supervised to ensure that they do not play with the appliance.
- If the power supply of the transformer is damaged, it must be replaced by the manufacturer or by its technical service centre or by a person with similar qualifications, in order to avoid any risk.
- Always position the power supply unit at a minimum distance of 3 metres (10 feet) from the edge of the pool, in a dry, well-ventilated area. Position the power supply unit in an area that cannot be reached by children. For example, at a height above 160 cm (63 inches).
- Never remove, bypass or tamper with the safety devices installed. The failure to comply with this requirement may pose serious risks to the health and safety of people.
- Operators who perform repairs during the working life of the robot must have the necessary technical expertise, skills and experience in this specific field. The failure to comply with these requirements may be hazardous to the health and safety of people.
- Any work to be performed on the charging station must be carried out with plug of the power cord disconnected.
- The robot cannot be used without the top cover. If the mechanical parts of the robot are damaged, replace them.

- The Manufacturer shall not be held liable if unoriginal spare parts are used.
- Never use and recharge the robot in explosive and/or flammable environments.
- Only use the battery charger and power supply unit supplied to recharge the robot. Improper use can cause electric shocks, overheating or leakage of corrosive liquid from the battery. In case of leakage, the battery must be washed with water/ neutraliser; in case of contact with eyes, consult a physician.

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TECHNICAL INFORMATION

TECHNICAL SPECIFICATIONS

Description		Model
		045BA0
Robot dimensions (W x H x D)	mm	410 x 320 x 460
Weight	Kg	21
Ambient operating temperature	Max °C	ROBOT 5°(Min) +35°(Max) BATTERY CHARGER -10°(Min) +40°(Max)
Water protection class	IP	ROBOT - IP68 BATTERY CHARGER - IP64
Maximum pool depth	cm	500
Maximum recharging base depth	cm	500
Water, operating parameters		pH: 7.0-7.8 Temperature: 5-35°C NaCl Max: 5,000 ppm Chlorine Max : 4 ppm
Power Supply unit		Vin 100 - 240Vac. Input Frequency range 50-60. Vout 36Vcc - 8,9A.
Battery		Lithium Ion - 25,2V - 13.8Ah
Avg. working time	hh:mm	2:00
Avg. recharging time	hh:mm	3:00
Travelling speed on the bottom	Mt/min.	10 - 20
Travelling speed on the wall	Mt/min.	8
Filters		2 Litres, mesh pitch of 0.5mm
Tablet/Console		included
Communication Box		optional
Smooth wall kit		optional
Adapter for curves between the wall and bottom		optional

MAIN PARTS

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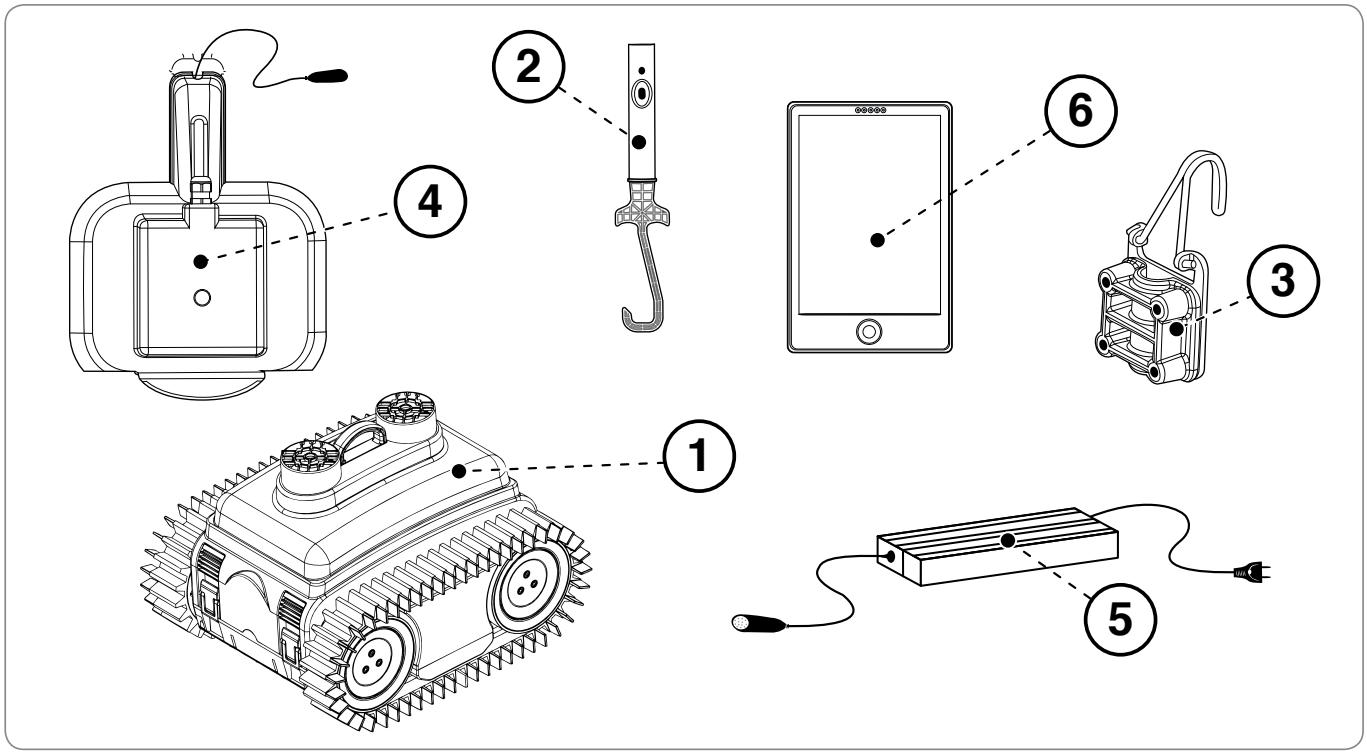
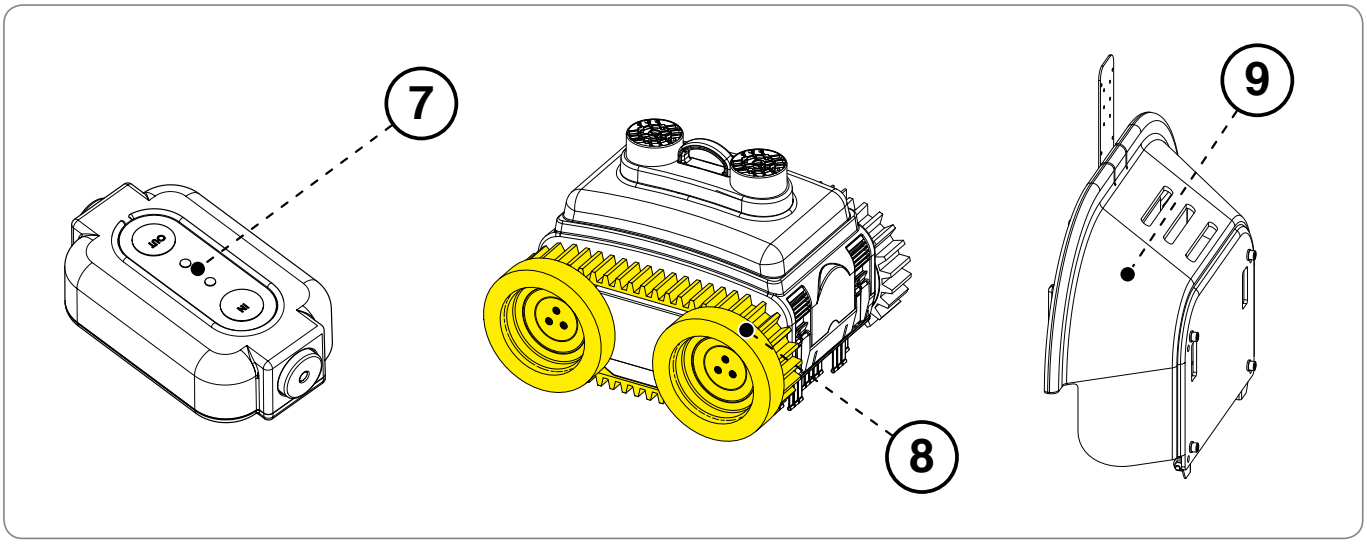
1. **Robot.**
2. **Robot hook:** for lifting the robot out of the water (pole not included).
3. **Charging hook:** for securing the charging cord immersed in the water.
4. **Robot recharger:** for recharging the robot in the water.
5. **Power Supply unit:** powers the recharging of the robot.
6. **Tablet/Console:** it allows you to programme the robotic cleaner settings and consult the user manual.



7. **Communication Box**: Not included in the kit. Device to be installed between the power supply unit and robotic cleaner recharging base. It allows you to recall the robotic cleaner to the recharging base or enable it to operate even if it is not within the set working time band.
8. **Smooth wall kit**: Not included in the kit. Kit to be applied to the wheels in the presence of smooth walls which prevent the robotic cleaner from climbing up them.
9. **Adapter for curves between the wall and bottom**: Not included in the kit. Allows the installation of the robotic cleaner recharging base in swimming pools that are curved between the wall and bottom, distancing the recharging base up to 20 cm from the wall so it can detect the bottom. The adapter also allows you to manage non-horizontal bottoms.



INSTALLATION AND UNPACKING

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UNPACKING

The equipment is delivered suitably packaged. When unpacking, carefully remove and check the integrity of the parts.
The packaging contains all the necessary information for handling the device.

INSTALLATION

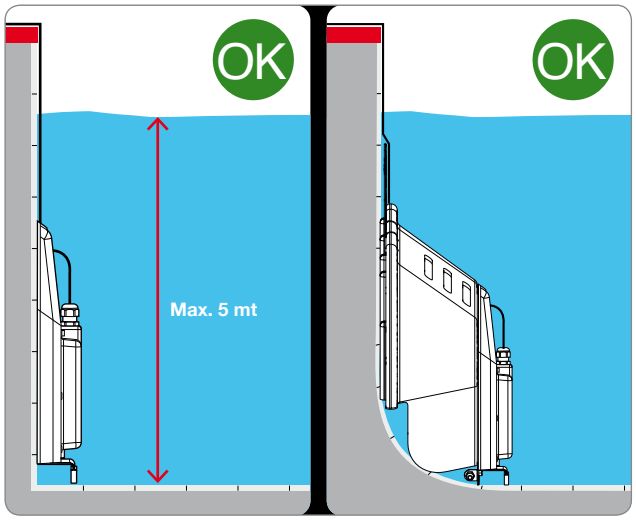
- Remove the robot from the packaging.
- Place the robot on the ground.
- Install the charging base and then gently immerse the robot in the pool. Wait until it has settled on the bottom and then, using the hook provided, place the robot near the charging plate from the front side of the robot, which is identified by a recharging sticker. If positioned correctly, the leds of the recharger will light up continuously.
- Recharge the robot for 15 minutes before moving to the programming phase.
- To program the robot, take it out of the water using the hook provided, place it on the ground and follow the programming instructions. The programming only works with the robot out of the water.
- Once programmed, immerse the robot in the water so that the work cycle can begin.

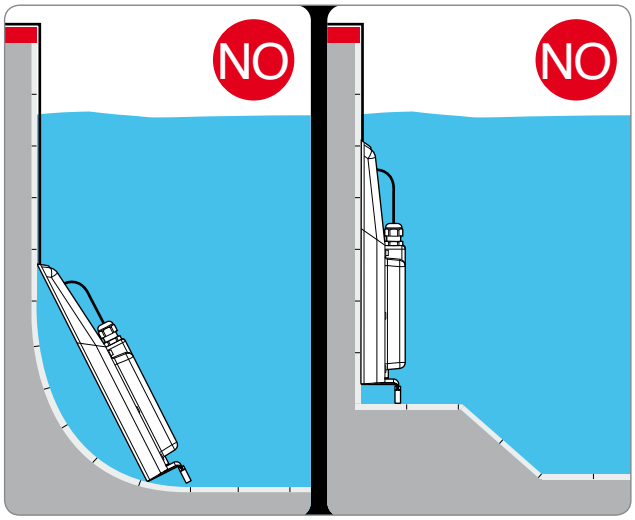
INSTALLATION OF CHARGING BASE

Remove the charging base from its packaging.
Place the charging base along the vertical wall of the pool.

Important

- **Position the steel side of the dissipator in contact with the pool wall.**
- **Do not position the charging base on the bottom of the pool.**
- **Make sure that the angle formed between the charging base and the opposite bottom is 90° and that the area surrounding the recharger (at least 2 meters) is even and horizontal. Alternatively, use the provided adapter for curves between the wall and bottom.**
- **Preferably position the charger on the deeper end and, however, at a depth not greater than 5 meters.**

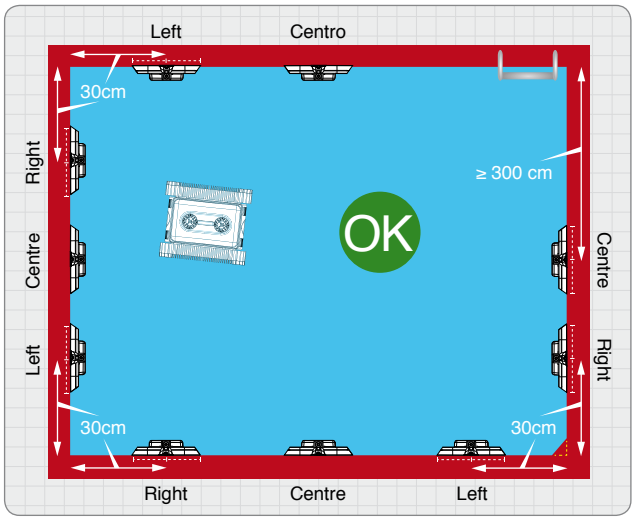




Here are some examples of where the charging base can be installed and where it cannot be installed:

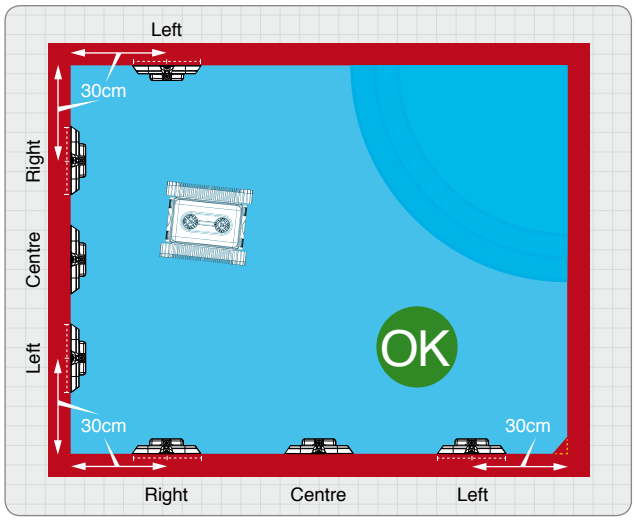
1. position the wire of the charging base 30 cm from the corner of the wall. Alternatively, the charger can be installed at the centre of the wall. In this type of set-up, there are three positioning options and distances:

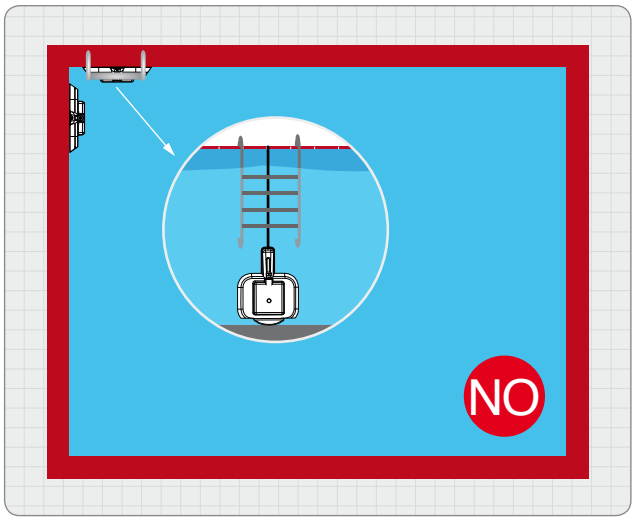
- At least three meters away from the left side wall. Set the mode of re-entry to follow the edge in a clockwise direction.
- At least three meters away from the right side wall. Set the mode of re-entry to follow the edge in a counter-clockwise direction.
- Roughly in the centre, recommended for irregular-shaped or round pools, or pools with narrow passages, and when the above rules cannot be followed. Set the Random re-entry mode.



2. in case of bottoms with level differences or steps, place the charging base on the opposite wall. Observe the above-mentioned distances.

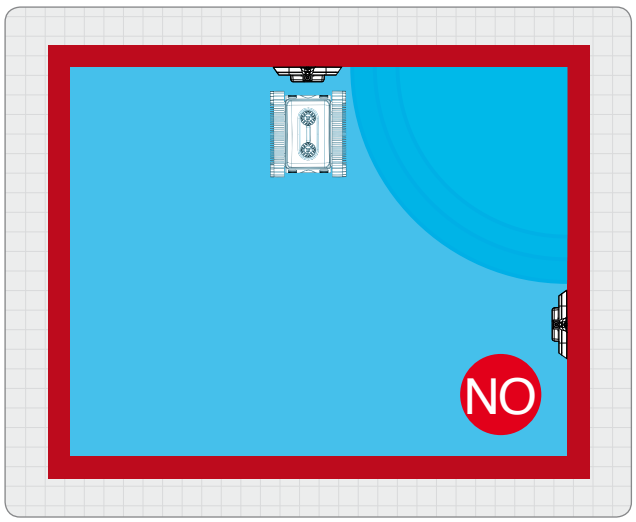
3. do not place the charging base under or near a ladder.

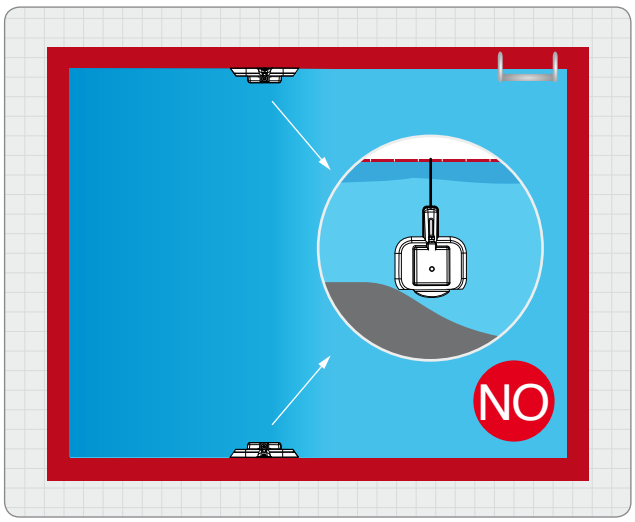




4. do not place the robot near steps. The robot may find it difficult to return to the charging base.

5. do not place the charging base on the wall near a level difference.





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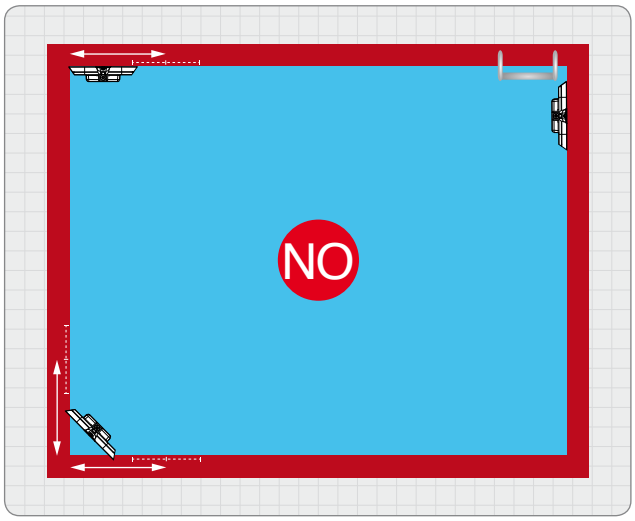
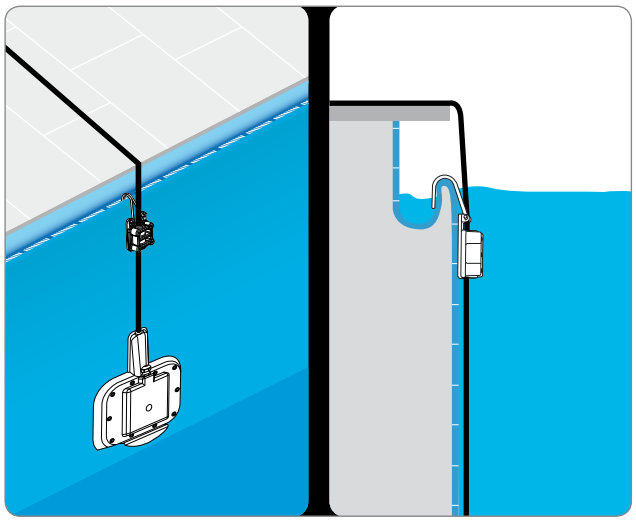
6. do not place the wire of the charging base less than 30 cm from the corner. Do not place the recharging base in the angle of the walls. It must be installed in contact with one of the vertical walls of the swimming pool. Do not place the recharging base under or near the stairs.

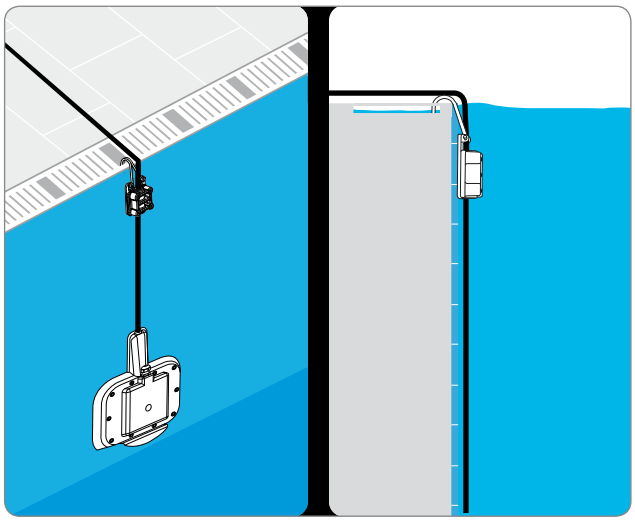


In the event that more than one positioning solution is possible, follow these tips:

- Centre. This positioning is recommended for very irregular-shaped and round pools or pools with narrow passages.
- Left. This positioning is recommended for regular-shaped pools with left wall adjacent to the charger that forms a right angle.
- Right. This positioning is recommended for regular-shaped pools with right wall adjacent to the charger that forms a right angle.

After positioning the charging base, fasten the cord to the edge of the pool.
Here are some examples of pool edges with installation of the charging hook. The cord can be installed along the edge or on the ground next to the pool, as long as there is an eyelet or a loop in each of these points on which to fasten the hook.





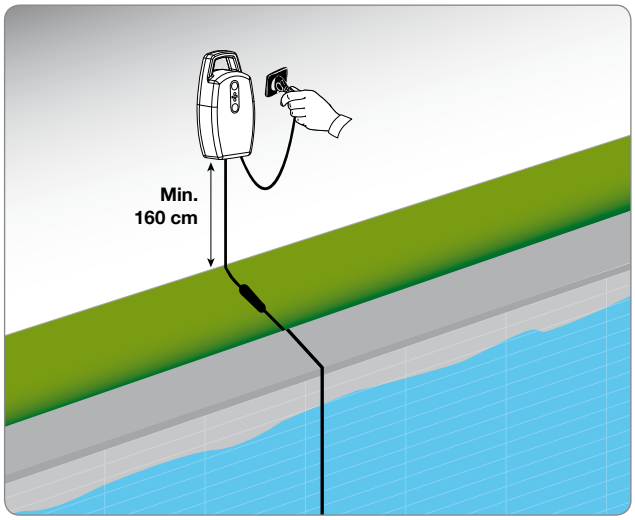
Warning - Caution

- **Position the power supply unit in an area that cannot be reached by children. For example, at a height above 160 cm (63 ").**
- **When connecting the electricity, make sure a power outlet is positioned near the installation area. Make sure the connection to the mains power complies with the applicable laws. To operate in complete safety, make sure the electrical system, which is connected to the power supply unit, is equipped with a well-functioning earthing system.**
- **Make sure only authorised people have access to the power supply.**

Important

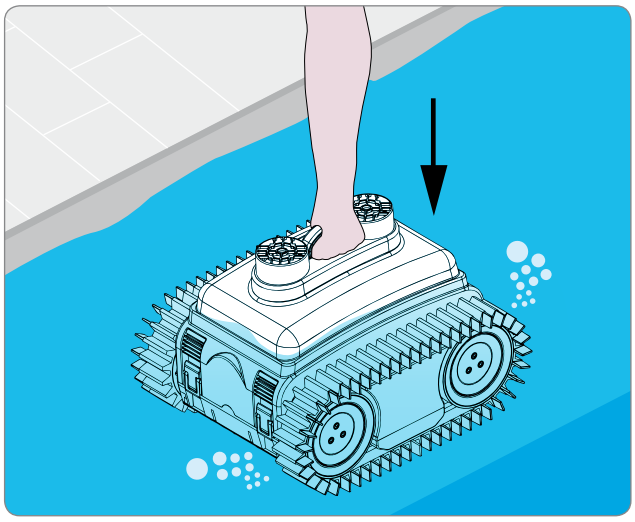
It is advisable to install the unit in a cabinet for electric components (for outdoor or indoor use), well ventilated to maintain correct air circulation and fitted with a key lock.

Connect the cord to the power outlet.
Connect the power unit to the mains electricity supply.

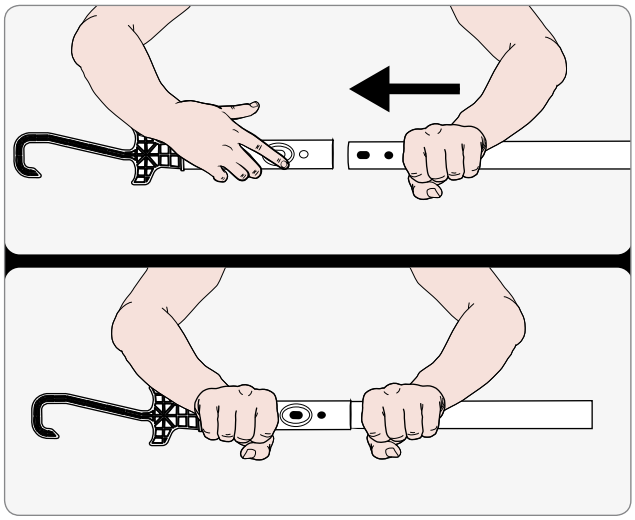


POSITIONING THE ROBOT IN THE CHARGING BASE

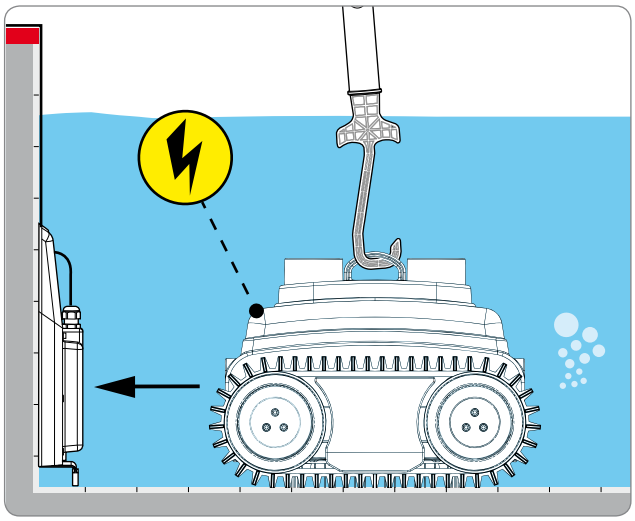
Gently immerse the machine in the water.



Attach the retrieving hook on the pole to clean the pool (not included).



Using the retrieving hook supplied, bring the recharging side (identified by a sticker affixed to the body of the robot) in contact with the plate of the charging base.



Danger - Attention

The first charging of the robot does not have to be performed out of the water. It can be brought close to the charger for ten minutes or so.. This operation allows waking the robot from stand-by mode and programming it.

Once the machine has been placed on the charging base, check that the leds are on and steady. If the green or blue LED is off or flashing, consult the TROUBLESHOOTING section.

On first use, leave the robot to recharge for at least 15 minutes, then retrieve the robot using the hook supplied and remove it from the water. Program the settings using the remote console.

If the robot has already been programmed, it will start its work cycle within the scheduled time once the batteries are charged.

USE AND OPERATION

REQUIREMENTS FOR USE

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Important

- **When using the robot for the first time, carefully read the whole manual and be sure to fully understand it, especially the safety information.**
- **Only use the robot for its intended purpose as described by the Manufacturer. Do not tamper with any device to obtain different operating performances.**

Important

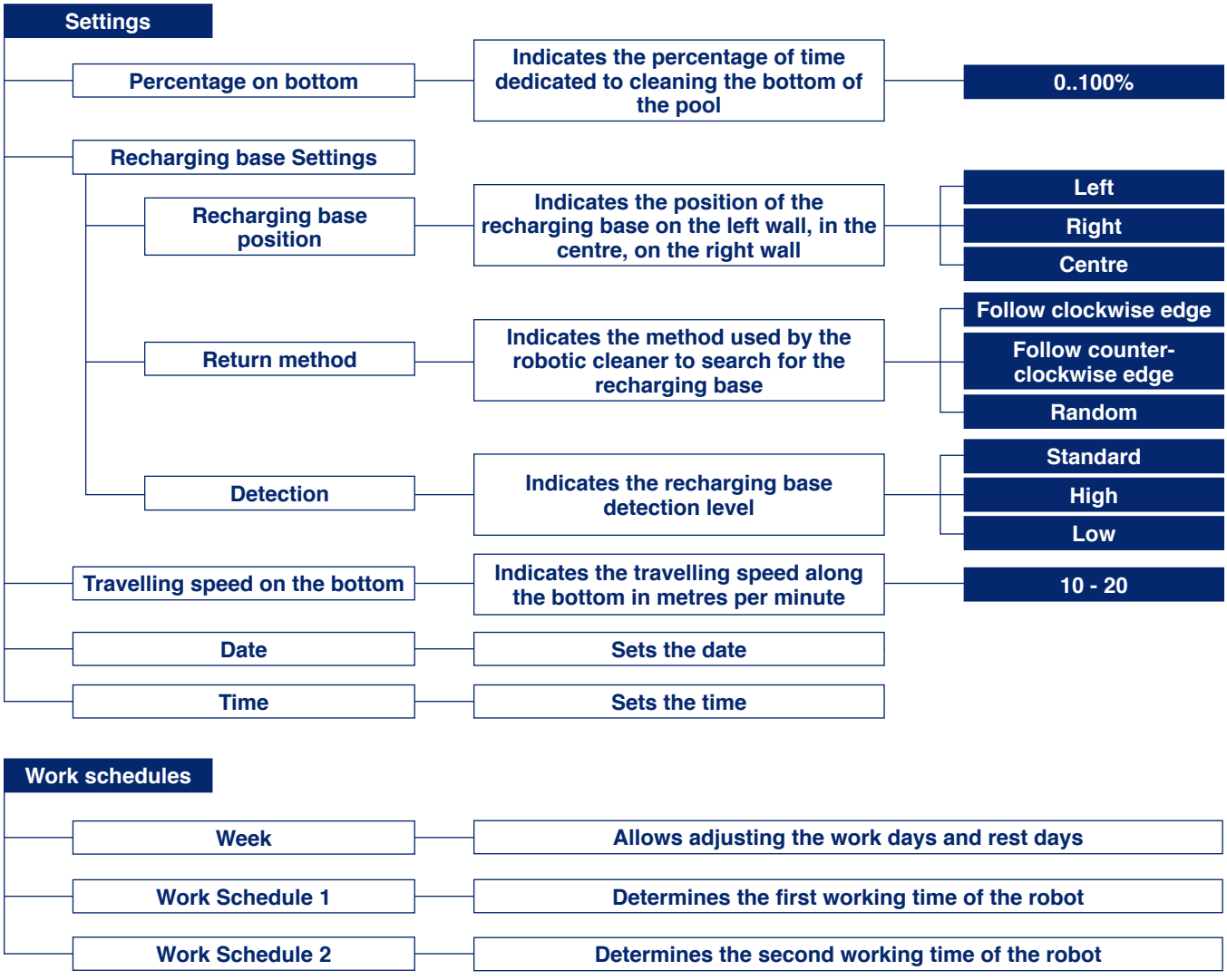
The programming only works with the robot out of the water.

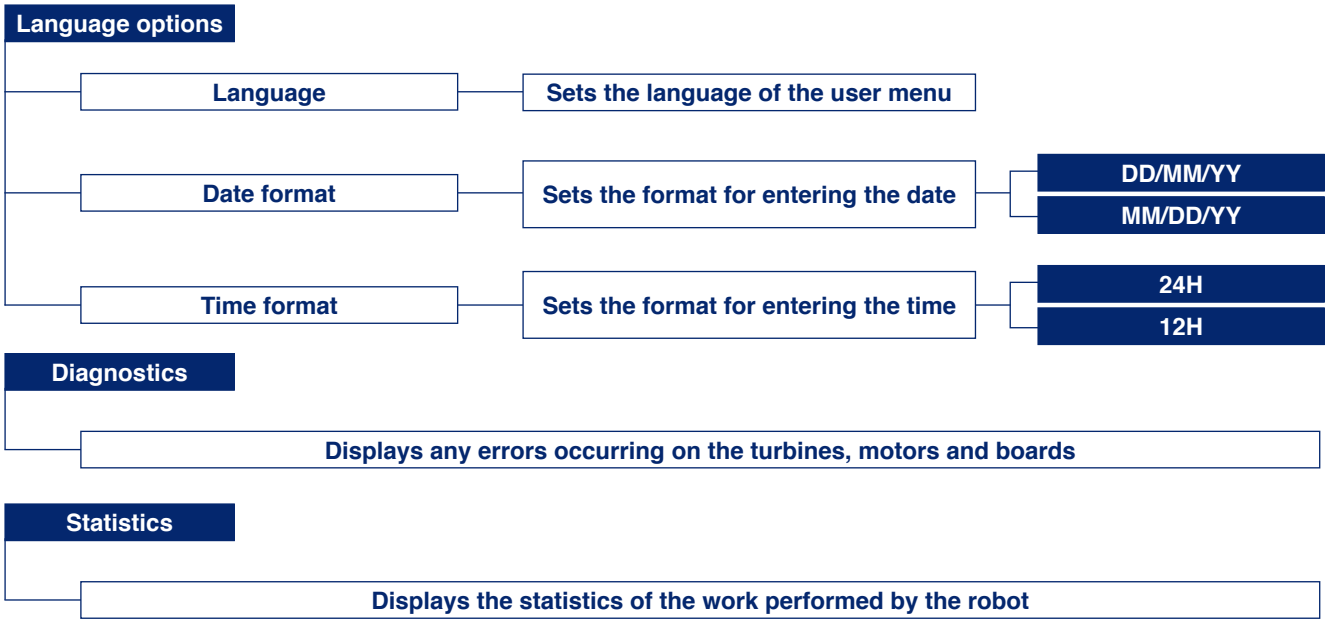
Important

Proceed with the programming within 45 minutes; after this time, the robot goes back into stand-by mode. To reactivate, place it in the charging station.

NAVIGATION

The menu has a tree structure. Follow the introduction containing a summary of the programming functions available. Details of each function are found in the pages following the flow diagram.


Settings
Percentage on bottom
Indicates the percentage of time dedicated to cleaning the bottom of the pool
0..100%
Recharging base Settings
Recharging base position
Indicates the position of the recharging base on the left wall, in the centre, on the right wall
Left
Right
Centre
Return method
Indicates the method used by the robotic cleaner to search for the recharging base
Follow clockwise edge
Follow counter-clockwise edge
Random
Detection
Indicates the recharging base detection level
Standard
High
Low
Travelling speed on the bottom
Indicates the travelling speed along the bottom in metres per minute
10 - 20
Date
Sets the date
Time
Sets the time
Work schedules
Week
Allows adjusting the work days and rest days
Work Schedule 1
Determines the first working time of the robot
Work Schedule 2
Determines the second working time of the robot



SETTINGS - PROGRAMMING MODE

Percentage on bottom: sets the percentage of time that the robot dedicates to cleaning the bottom of the pool. A value between 0% and 100% can be set. The higher the value set, the longer the time dedicated to cleaning the bottom.
100%: the robot only works on the bottom.
50%: the robot works half the time on the bottom and half the time on the wall.
0%: when the robot finds a wall, it will travel up it until reaching the water surface.

Recharging base Settings:

Charging position: Sets the charging position in the wall, following the wall as if it was positioned inside the pool.
Centre: indicates the charging position in the centre of the wall.
Left: indicates the charging position on the left side of the wall.
Right: indicates the charging position on the right side of the wall.

Re-entry mode: indicates the mode in which the robot looks for the charger.
Follow clockwise edge: This mode is recommended for regular-shaped pools and pools with the left side free of obstacles. If the charger is positioned at the centre, this mode can only be used if it is at least three metres away from the corner of the left side wall.
Follow counter-clockwise edge: This mode is recommended for regular-shaped pools and pools with the right side free of obstacles. If the charger is positioned at the centre, this mode can only be used if it is at least three metres away from the corner of the right side wall.
Random: This method is recommended when the charger is in the “central” position and for very irregular and round pools or pools with narrow passages.

Detection: indicates the recharging base detection level.
Standard: recommended settings.
High: recommended for large swimming pools.
Low: recommended when the recharging base is positioned in a narrow section.

Travelling speed on the bottom: sets the travelling speed of the robot on the bottom in metres/minute. The higher the speed set, the more space the robot covers. Set low speeds in small pools in relation to the maximum capacity of the robot. Set high speeds in large pools or pools that dirty easily.

Date: function for setting the date.

Time: function for setting the time.

SETTING - WORKING TIMES

Weekly: function for programming the working days of the robot during the week. On days with the flag “active,” the robot will perform the operating cycles according to the set working times.

Work schedule 1: function for setting the first time slot of the robot’s working day. Set the start and end time of the working cycle. Setting the time at “00:00 – 00:00” means the robot will not work during work schedule 1.

Work schedule 2: function for setting the second time slot of the robot’s working day. Set the start and end time of the working cycle.
Setting the time at “00:00 – 00:00” means the robot will not work during work schedule 2.

The setting of the time is essential for the robot’s proper functioning. Many parameters should be taken into consideration when setting the work time such as the size, shape, ease with which it gets dirty, frequency of use, etc. of the pool.
As a rule, it is recommended to follow these rules:

- program the robot activity while the cleaning system of the robot is running. Dirt removed by the turbines will then be filtered by the central system, improving the robot’s capacity.
- start with a wide-ranging program and then reduce it when you are satisfied with the level of cleanliness.
- program and leave the robot running every day.
- check the filter of the robot. At first, very frequently, and then decrease the frequency in relation to the dirt found in the filter.

SETTINGS - LANGUAGE OPTIONS

Function for selecting the display language of the user and format menu that is used to set and display the date and time of the robot.

SETTINGS - DIAGNOSTICS

Displays any critical events or errors that occurred in the main components during the operation of the robot.
If major errors occur, refer to the “Troubleshooting” chapter or contact the technical service centre.

SETTINGS - STATISTICS

Displays information on the work performed by the robot during its operation.

SET UP

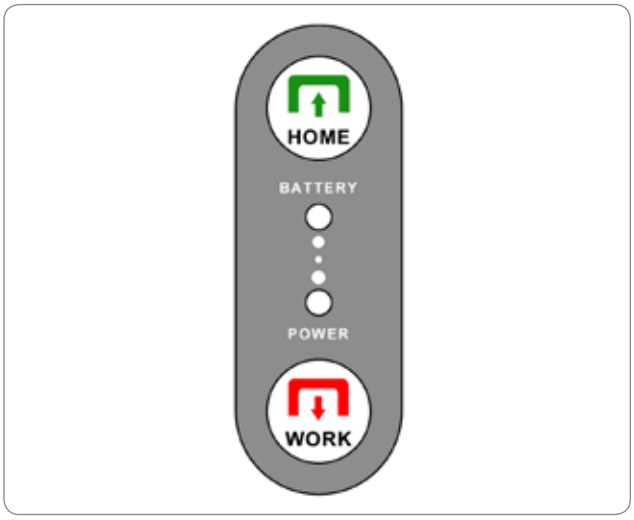
1. Set and check the robot programming.
2. Check and clean the filters.
3. Place the robot inside the pool; refer to “Positioning robot in charging base”.
4. The robot starts is work cycle according to the settings programmed.

USING THE COMMUNICATION BOX

The “Communication Box” allows you to recall the robotic cleaner to the recharging base or start it up even if it is not within the set working time band.

Press the “HOME” button to recall the robotic cleaner to the recharging base, the “Battery” led will start to flash and the robotic cleaner will return to the recharging base when it acknowledges the recall command moving to the range of action of the recharging base itself. Press the “WORK” button or wait a few hours before starting the robotic cleaner again as per the standard operating settings.

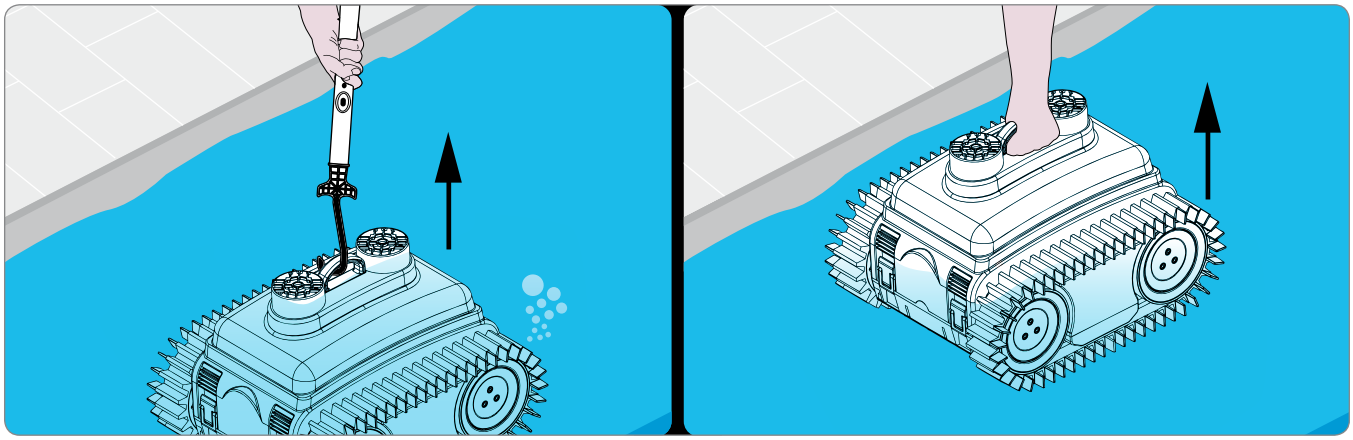
Press the “WORK” button and the robotic cleaner will perform a normal work cycle even if the current time is outside the set time band, the “Power” LED begins to flash and the work cycle starts within ten seconds or so, only if the batteries are sufficiently charged. On completing the work cycle, the robotic cleaner will return to the recharging base and start operating again as per the standard operating settings.



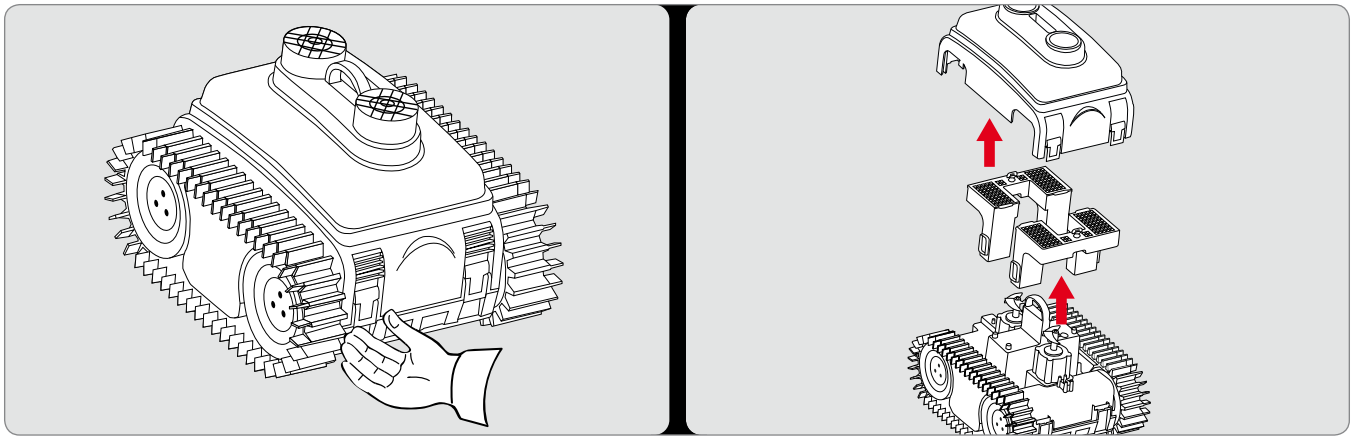
ORDINARY CLEANING

Clean the filter frequently, and then less frequently in relation to the dirt found in the filter. The frequency of cleaning depends on several factors: size of the pool, the ease with which it gets dirty, the frequency of use, etc.

- Use the retrieving hook to bring the robot to the surface.
- Wait for the turbines to stop working.
- Remove the robot gently from the water, grasping it by the handle on the retrieving hook, and place it on the ground.
- Wait for it to emit four consecutive beeps to confirm that the robot is off.



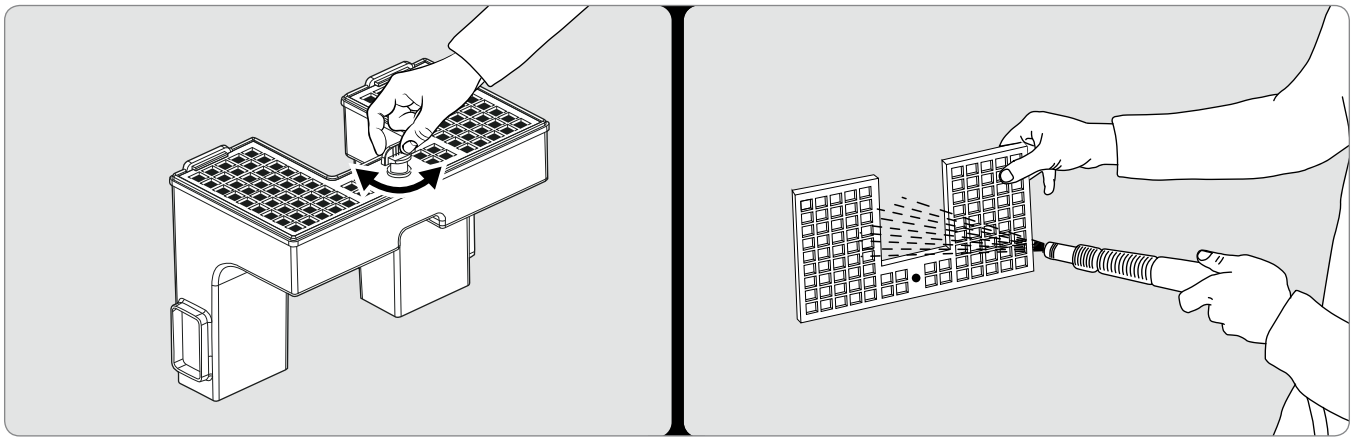
- Unhook the fastening clips of the bonnet.
- Lift the bonnet and remove the filters to be cleaned.



- Turn the closing clips to open the filter.
- If possible, clean the filter with the aid of a water hose.
- Close the filter.
- Place the filters inside the robot.
- Position the body and make sure all the clips are closed correctly.
- With the retrieving hook, gently place the robot inside the pool; refer to “Positioning robot in charging base”.

Danger - Attention

If the robot has been out of the water for more than one hour, it will go into standby. In this case, place the robot on the charging base, see “Positioning robot in charging base” to make it operational again.



PROLONGED INACTIVITY AND RESTARTING

If the robot has not been used for a long period of time, a series of operations must be performed to guarantee proper functioning at the time of reuse.

1. Remove the robot from the water when its batteries are fully charged. Usually, before the start of the first daily work cycle. Alternatively, disable the work times of the robot or the days of activity, and extract it after at least 4 hours of recharging.
2. Have routine maintenance performed by an authorised dealer. This is essential for keeping the robot in good working order. The assistance usually includes the following operations:
   - thorough cleaning of the robot, turbines, filters and all the moving parts.
   - checking of robot functioning.
   - checking and, if necessary, replacement of any worn parts such as filters, turbines, brushes.
   - checking of the battery capacity.
   - if necessary, the dealer can download the operating statistics, check for any faults and load any new software updates.
3. Thorough cleaning of the robot, turbines, filters and all the moving parts.
4. Check for any worn or damaged parts, such as filters, turbines, brushes and if necessary, replace.
5. Store the robot in a protected and dry place with an ambient temperature between 10° and 20° C, out of reach of children, pets, other foreign objects, etc. Store the robot at a temperature below 20°C in order reduce the automatic discharge of the batteries.
6. Disconnect the power plug from the power supply unit.
7. For correct maintenance of the batteries, recharge the robot at least every 5 months.

Restarting

Before restarting the robot after a long period of inactivity, proceed as follows.

1. Connect the plug of the power supply unit to the electrical outlet.
2. Reconnect the main electrical power supply.
3. Gently immerse the robot in the water and place it on the charging plate. If positioned correctly, the leds will light up continuously.
4. The robot is now ready for use.

TROUBLESHOOTING GUIDE

TROUBLESHOOTING

EN

The information below is designed to help identify and correct any faults and/or malfunctions which may occur during operation. Read this guide before contacting the dealer.

Problem	Cause	Remedies
The robot has difficulty climbing up the walls	Dirty filter	Clean the filter Install the “smooth wall kit”
The robot does not climb the wall or the walls are dirty	Programming error	Check the “Percentage on bottom” value in the user menu, and if necessary, set it at a higher value
The robot has stopped in the pool without being recharged	Recharging cannot be reached	Check the programming of the re-entry side. Check that the recharging base has been positioned correctly. Check that the fastening hook of the charging cord is flush with the wall and that the recharger does not turn around itself. Check the filters and if necessary, clean. With the retrieving hook, position the robot in recharging mode, check that the leds are lit up and steady, wait until the batteries are charged. The robot will start its cycle only when the batteries are charged. Check that electrical power is being supplied to the power supply unit
The robot does not start the work cycle	Power supply unit is off	Check that electrical power is being supplied to the power supply unit. Check the programming of the working days and times
The recharging does not start	No electrical power	Check that electrical power is being supplied to the power supply unit
The blue recharging led flashes when the robot is in the recharging position	Wrong recharging side	With the retrieving hook, turn the robot on the opposite side
The pool is dirty	Programming error	Check the setting and follow the programming recommendations for the parameters: • working days • working times • speed on the bottom • percentage on bottom
	Dirty filter	• Perform routine cleaning
The robot works a lot less than what is declared	Dirty filter	Perform routine cleaning
	The batteries are about to run out	Contact an authorised Service Centre
The robot does not start when immersed in the pool	Discharged batteries	With the retrieving hook, position the robot on the recharging base, check that the leds are lit up and steady, wait until the batteries are charged. The robot will start its cycle only when the batteries are charged

REPLACEMENT OF PARTS

EN

TIPS ON REPLACING PARTS

Important

Replace and repair any parts according to the manufacturer's instructions, or contact the service centre if these operations are not included in the manual.

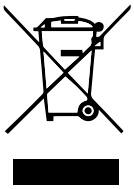
BATTERY REPLACEMENT

Important

Replace the batteries at an authorised service centre.

ROBOT DISPOSAL

- At the end of its life cycle, this product is classified as WEEE (Waste Electrical and Electronic Equipment) and therefore cannot be disposed of as household waste, or as mixed municipal waste (unsorted), or separate municipal waste (sorted).
- When disposing of the robot the user must ensure that it is recycled in accordance with the local requirements; in particular, the electrical and electronic components must be sorted and disposed of separately in special recycling collection centres authorised to collect WEEE, or the product must be returned still intact to the retailer when a new product is purchased. Unauthorised disposal of WEEE is punishable with fines governed by the laws in force in the country where the infraction took place.



- The presence of hazardous substances in electrical and electronic equipment has a potentially harmful effect on the environment and on human health, therefore the user plays an important role in contributing to reuse, recycling and other forms of recovering WEEE.
- All parts that must be collected, separated and disposed of in a specific manner are marked with a special label.

Danger - Attention

WEEE - Waste of Electric and Electronic Equipment may contain hazardous substances having potentially harmful effects on the environment and on human health. WEEE must be disposed of in the correct manner and only at authorised collection centres.

- Packaging - The product packaging is made of recyclable materials and must be disposed of in a sustainable way in approved collection bins or at special authorised collection centres.
- Batteries – Old or dead batteries contain substances harmful to the environment and to human health, therefore they must not be disposed of as normal household waste. The user must dispose of batteries in a sustainable way in approved collection bins or at authorised collection centres.